

31. (New) The process according to Claim 4, wherein alternately increasing and decreasing the pressure is carried out with an amplitude of the pressure variation from 10 to 100 bars and a time interval of 10 minutes.

32. (New) The process according to Claim 1, wherein the dense fluid comprises at least one selected from the group consisting of methane, propane, butane, isobutane, pentane, ethylene, propylene, methanol and ethanol.

33. (New) The process according to Claim 7, wherein the ~~dense fluid~~ comprises an aliphatic alcohol having 1 to 5 carbon atoms selected from the group consisting of ethanol, methanol and mixtures thereof.

34. (New) The process according to Claim 8, wherein the co-solvent comprises at least one selected from the group consisting of a buffer solution of phosphate, a buffer solution of hydrogen phosphate, penicillin, and a solution of ascorbic acid.

35. (New) The process according to Claim 1, further comprising
contacting the material with ~~hot or~~ boiling water before or after contacting the material with the dense fluid under pressure.

REMARKS

Claims 1-2, 4-20, 23-28 and 31-35 are active in the present application. Claims 3, 21-22 and 29-30 have been cancelled. Claims 31-35 are new claims. Support for the new claims is found in the original claims. The original claims have been amended for clarity. Claim 1 has been amended to incorporate the limitations of original Claim 3. Claim 12 has been amended to limit the dense fluid to those fluids in a supercritical state. No new matter is believed to have been added by this amendment.

Applicants submit the amendment to the claims places all now pending claims in condition for allowance. Applicants respectfully request the passage of all now pending claims to Issue.

Respectfully submitted,

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IN THE CLAIMS

- 1. (Amended) [Treatment process for cork or a cork-based material in which said cork or said cork-based material is put into contact] A process comprising:
contacting a material comprising cork with a dense fluid under pressure at a temperature of from 10 to 120°C and at a pressure of from 10 to 600 bars, wherein said dense fluid is in a supercritical state.
2. (Amended) [Process] The process according to claim 1, [in which the contact is achieved] wherein the contacting is carried out at a temperature of 40 to 80°C and at a pressure of 100 to 300 bars.
3. (Cancelled).
4. (Twice Amended) [Process] The process according to claim 1, [in which compression/decompression cycles are carried out] further comprising
alternately increasing and decreasing the pressure.
5. (Amended) [Process] The process according to claim 4, [in which said compression / decompression cycles are] wherein alternatively increasing and decreasing the pressure is carried out with an amplitude of the pressure variation from 10 to 100 bars and time intervals varying from 10 seconds to a few minutes[, for example 10 minutes].
6. (Amended) [Process] The process according to claim 1, [in which said] wherein the dense fluid is at least one chosen [for example from among] from the group consisting of

carbon dioxide; sulphur hexafluoride; nitrous oxide; nitrogen monoxide; a light [alcanes for example] alkane containing 1 to 5 atoms of carbon[, such as methane, propane, butane, isobutane and pentane]; an [alkenes] alkene, such as ethylene and propylene; and [some] an organic liquid [liquids such as methanol and ethanol].

7. (Twice Amended) [Process] The process according to claim 1, [in which a co-solvent is added to] wherein the dense fluid under pressure comprises a co-solvent.

8. (Amended) [Process] The process according to claim 7, [in which said] wherein the co-solvent is chosen from [among water;] the group consisting of an aqueous [solutions] solution; an [alcohols, for example aliphatic alcohols with 1 to 5 atoms of carbon, such as ethanol, methanol and butanol; ketones;] a ketone and mixtures thereof.

9. (Amended) [Process] The process according to claim 8, [in which said aqueous solutions are] wherein the co-solvent comprises at least one selected from the group consisting of an aqueous buffer [solutions such as buffer solutions of phosphate and / or hydrogenophosphate]; a fungicide [and/or] an antibiotic [solutions such as penicillin;] and an antioxidant [solutions such as solutions of ascorbic acid].

10. (Twice Amended) [Process] The process according to claim 7, [in which said] wherein the co-solvent is [added to] present in the dense fluid under pressure [with a content] in an amount of 0.01 to 10% by weight.

11. (Amended) [Process] The process according to claim 10, [in which said] wherein the co-solvent is [added to] present in the dense fluid under pressure [with a content] in an amount of 0.02 to 1% by weight.

12. (Twice Amended) [Process] A process for [selective] extraction of [contaminating] organic compounds from a material comprising cork [or a cork-based material, in which said material is treated by] comprising:

contacting said material with a dense fluid under pressure at a temperature of from 10 to 120°C and at a pressure of from 10 to 600 bars and adding a co-solvent to the dense fluid under pressure.

wherein the dense fluid comprises a co-solvent, and

wherein the dense fluid is in the supercritical state.

13. (Amended) [Process for selective extraction] The process according to claim 12, [in which] wherein said organic compounds [are] comprise compounds [responsible for] capable of tainting the material with an undesirable [tastes] taste and/or [smells] smell.

14. (Amended) [Extraction] The process according to claim [13] 12, [in which] wherein said organic compounds [responsible for the undesirable tastes and/or smells] [are] comprise at least one selected from the group consisting of a [(poly)chlorophenols and other (poly)chlorophenol, a phenolic [compounds; and (poly)chloroanisoles and other derivatives] compound, a (poly)chloroanisole, and a compound of anisole.

15. (Amended) [Process] The process according to claim 12, [in which] wherein said organic compounds are at least one of pentachlorophenol [(PCP)], trichloroanisole [(TCA) and] or tetrachloroanisole [(TeCA)].

16. (Twice Amended) [Extraction] The process according to claim 12, in which the dense fluid under pressure is CO₂ and the co-solvent is [water or] an aqueous solution.

17. (Twice Amended) [Treatment or extraction] The process according to claim 1, further comprising

separating the dense [in which the] fluid [and the] from one or more extracts [are separated by one or several steps,] after [the treatment or the extraction by the] obtained by contacting the material with the dense fluid under pressure, and [the] recycling a gaseous fluid [is recycled].

18. (Twice Amended) [Process] The process according to claim 1, [in which said cork or said cork-based] further comprising:

chemically or mechanically treating a material [is also subjected to a mechanical and/or chemical treatment] before or after [said treatment or said extraction] contacting with [by] the dense fluid under pressure[, and particularly treatment by hot or boiling water commonly called a "boiling treatment"].

19. (Twice Amended) [Process] The process according to claim 1, [in which said cork or said cork-based] further comprising:

shaping the material [is shaped] before or after [said treatment or said extraction using] contacting with the dense fluid under pressure[; or earlier than said optional mechanical and/or chemical treatment, preceding said treatment or said extraction by the dense fluid under pressure; or later than said optional mechanical and/or chemical treatment, following said treatment or said extraction by the dense fluid under pressure].

20. (Amended) [Process] The process according to claim 19, further comprising shaping the material [in which said cork or said cork-based material is put] into the form of bottle corks, boards or sheets.

21. (Cancelled).

22. (Cancelled).

23. (Amended) [Process] A process for disinfecting or making aseptic a material comprising cork [or a cork-based material, or making it aseptic, by bringing said cork or said cork-based] comprising:

contacting the material [into contact] with a dense fluid under pressure comprising [to which] a co-solvent [has been added].

wherein said dense fluid is in a supercritical state.--

24. (Amended) [Process] The process according to claim 8, [in which] wherein said co-solvent is [added to] present in the dense fluid under pressure [with a content] in an amount of 0.01 to 10% by weight.

25. (Amended) [Treatment or extraction] The process according to claim 12, further comprising

separating the material [in which] the dense fluid [and the] from one or more extracts [are separated by one or several steps,] after [the treatment or the extraction by] contacting the material with the dense fluid under pressure, and

recycling a [the] gaseous fluid [is recycled].

26. (Amended) [Process] The process according to claim 12, [in which said cork or said cork-based] further comprising

mechanically or chemically treating the material [is also subjected to a mechanical and/or chemical treatment] before or after [said treatment or said extraction by] contacting with the dense fluid under pressure[, and particularly treatment by hot or boiling water commonly called a "boiling treatment"].

27. (Amended) [Process] The process according to claim 12, [in which said cork or said cork-based] further comprising:

shaping the material [is shaped] before or after [said treatment or said extraction using] contact with the dense fluid under pressure[; or earlier than said optional mechanical and/or chemical treatment, preceding said treatment or said extraction by the dense fluid under pressure; or later than said optional mechanical and/or chemical treatment, following said treatment or said extraction by the dense fluid under pressure].

28. (Amended) [Process] The process according to claim 27, [in which said cork or said cork-based] comprising shaping the material [is put] into the form of bottle corks, boards or sheets.

29. (Cancelled).

30. (Cancelled).

Claims 31-35 (New).-